

ABSTRACT OF THE DISCLOSURE

A scheme for filling plugs through chemical mechanical polishing comprises depositing a
5 malleable conductive layer over a dielectric layer having openings formed therein. The
malleable conductive layer is deposited such that a liner is formed within the openings, however
the openings are not completely filled. A chemical mechanical polishing process using an
alumina based slurry at a neutral or slightly basic pH and no oxidizer is used to smear the
malleable conductive layer sufficiently to fill the remainder of the openings in the dielectric layer
10 forming filled or substantially filled plugs.